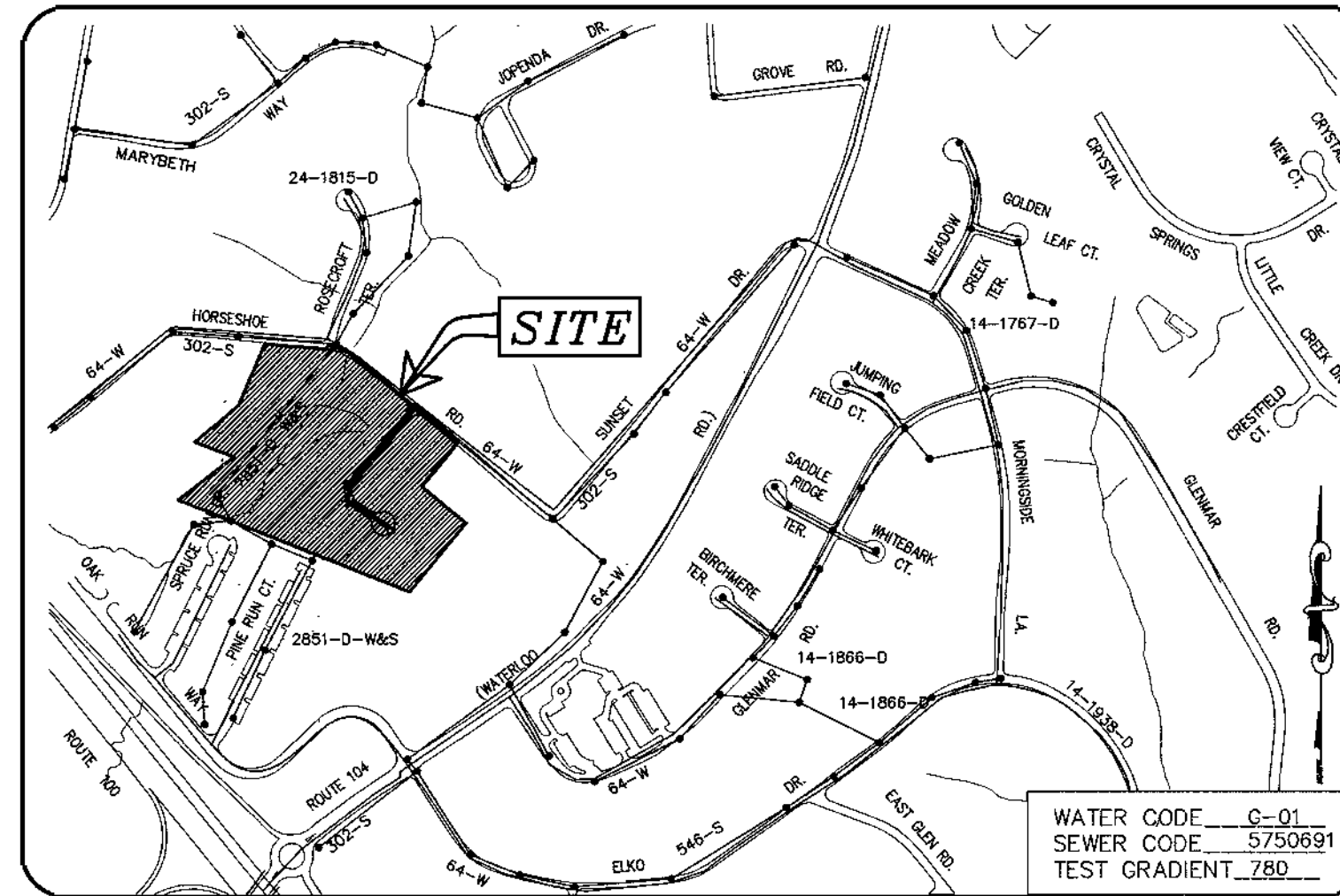


QUANTITY TABLE

ITEMS	QUANTITIES		TYPE	MANUFACTURER/SUPPLIER
	ESTIMATED	QUANTITIES		
STANDARD MH (HO. CO. STD.G-5.01)	4	4	4"	ATLANTIC
8" SEWER MAIN	588 L.F.	588	PVC	JM MANUFACTURER
4" SEWER HOUSE CONNECTION	400 L.F.			
# SEWER HOUSE CONNECTIONS	21 EACH	21	PVC	JM MANUFACTURER
8" WATER MAIN	368 L.F.	368	DIP	GRIFFEN PIPE
6" WATER MAIN	205 L.F.	205	DIP	" "
4" WATER MAIN	379 L.F.	379	DIP	" "
1" WATER HOUSE CONNECTION	430 L.F.	430	COPPER	READING TUBE
# 1" WHC	20 EACH	21	COPPER	READING TUBE
1.5" WATER HOUSE CONNECTION	30 L.F.			
# 1.5" WHC	1 EACH			
8"x 4" T.S. & V.	1 EACH	1	RSGV	MUELLER
8"x 8" T.S. & V.	1 EACH	1	RSGV	MUELLER
4" CAP & BUTTRESS	1 EACH	1		U.S. PIPE & FOUNDRY
6" CAP & BUTTRESS	1 EACH	1		" "
1/8 H.B. (6")	2 EACH	2		" "
1/16 H.B. (4")	1 EACH	1		" "
1/32 H.B. (4")	1 EACH	1		" "
8"x6" T. & V.	1 EACH	1		" "
8"x6" R	1 EACH	1	SCB	" "
F.H.	1 EACH	1	5'6"	MUELLER

NAME OF UTILITY CONTRACTOR: CONSOLIDATED CONSTRUCTION SERVICES
 SURVEY AND DRAFTING DIVISION AS-BUILT DATE



VICINITY MAP

SCALE 1"=600'

GENERAL NOTES

- APPROXIMATE LOCATION OF EXISTING MAINS ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING MAINS AND SERVICES AND MAINTAIN UNINTERRUPTED SUPPLY. ANY DAMAGE INCURRED SHALL BE REPAIRED IMMEDIATELY TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S EXPENSE.
- ALL HORIZONTAL CONTROLS ARE BASED ON MARYLAND STATE COORDINATES.
- ALL VERTICAL CONTROLS ARE BASED ON U.S.G.S. DATA.
- ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
- CLEAR ALL UTILITIES BY A MINIMUM OF 6". CLEAR ALL POLES BY 2'-0" MINIMUM OR TUNNEL AS REQUIRED. THE OWNER HAS CONTACTED THE UTILITY COMPANIES AND HAS MADE ARRANGEMENTS FOR BRACING OF POLES AS SHOWN ON THE DRAWINGS. IN THE EVENT THE CONTRACTOR'S WORK REQUIRES THE BRACING OF ADDITIONAL POLES, ANY COST INCURRED BY THE OWNER FOR BRACING OF ADDITIONAL POLES OR DAMAGES SHALL BE DEDUCTED FROM MONEY OWED THE CONTRACTOR. THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPANIES TO SCHEDULE THE BRACING OF THE POLES.
- FOR DETAILS NOT SHOWN ON THE DRAWINGS, AND FOR MATERIALS AND CONSTRUCTION METHODS USE HOWARD COUNTY DESIGN MANUAL, VOLUME IV, STANDARD SPECIFICATIONS AND DETAIL FOR CONSTRUCTION (LATEST EDITION). THE CONTRACTOR SHALL HAVE A COPY OF VOLUME IV ON THE JOB.
- WHERE TEST PITS HAVE BEEN MADE ON EXISTING UTILITIES, THEY ARE NOTED BY THE SYMBOL [] AT THE LOCATION OF THE TEST PIT. A NOTE OR NOTES CONTAINING THE RESULTS OF THE TEST PIT OR PITS IS INCLUDED ON THE DRAWINGS. EXISTING UTILITIES IN THE VICINITY OF THE PROPOSED WORK FOR WHICH TEST PITS HAVE NOT BEEN DUG SHALL BE LOCATED BY THE CONTRACTOR TWO WEEKS IN ADVANCE OF CONSTRUCTION OPERATIONS AT HIS OWN EXPENSE. CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITY COMPANIES OR AGENCIES AT LEAST FIVE WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:
 STATE HIGHWAY ADMINISTRATION (410) 531-5533
 BG & E CO. CONTRACTOR SERVICES (410) 850-4620
 BG & E CO. UNDERGROUND DAMAGE CONTROL (410) 787-9068
 MISS UTILITY 1-800-257-7777
 COLONIAL PIPELINE CO. (410) 795-1390
 HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 BUREAU OF UTILITIES (410) 313-4900
- TREES AND SHRUBS ARE TO BE PROTECTED FROM DAMAGE TO THE MAXIMUM EXTENT. TREES AND SHRUBS LOCATED OUTSIDE THE CONSTRUCTION STRIP ARE NOT TO BE REMOVED OR DAMAGED BY THE CONTRACTOR.
- CONTRACTOR SHALL REMOVE TREES, STUMPS AND ROOTS ALONG LINE OF EXCAVATION. PAYMENT FOR SUCH REMOVAL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR CONSTRUCTION OF THE MAIN.
- THE CONTRACTOR SHALL NOTIFY THE BUREAU OF HIGHWAYS, HOWARD COUNTY, AT (410)313-2450 AT LEAST FIVE (5) WORKING DAYS BEFORE ANY OPEN CUT OF ANY COUNTY ROAD OR BORING/JACKING OPERATION IN COUNTY ROADS FOR LAYING WATER/SEWER MAINS OR HOUSE CONNECTIONS. THE APPROVAL OF THESE DRAWINGS WILL CONSTITUTE COMPLIANCE WITH DPW REQUIREMENTS PER SECTION 18.114(c) OF HOWARD COUNTY CODE.
- ALL WATER MAINS TO BE D.I.P. CLASS 52 UNLESS OTHERWISE NOTED.
- TOPS OF ALL WATER MAINS TO HAVE A MINIMUM OF 3'-1/2' COVER UNLESS OTHERWISE NOTED.
- VALVES ADJACENT TO TEES SHALL BE STRAPPED TO TEES.
- ALL FITTINGS SHALL BE BUTTRESSED OR ANCHORED WITH CONCRETE IN ACCORDANCE WITH THE STANDARD DETAILS UNLESS OTHERWISE PROVIDED FOR ON THE DRAWINGS.
- FIRE HYDRANTS SHALL BE SET TO THE BURY LINE ELEVATIONS SHOWN ON THE DRAWINGS. ALL FIRE HYDRANTS SHALL BE STRAPPED AND BUTTRESSED WITH CONCRETE IN ACCORDANCE WITH STANDARD DETAILS. SOIL AROUND THE FIRE HYDRANT SHALL BE COMPACTED IN ACCORDANCE WITH SECTION 1000 AND 1005 OF THE STANDARD SPECIFICATIONS.
- THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING WATER SYSTEM.
- ALL WATER HOUSE CONNECTIONS SHALL BE FOR INSIDE METER SETTING UNLESS OTHERWISE NOTED ON PLANS OR IN SPECIFICATIONS.
- ALL SEWER MAINS SHALL BE P.V.C. OR D.I.P. CLASS 52 UNLESS OTHERWISE NOTED.
- ALL MANHOLES SHALL BE 4'-0" INSIDE DIAMETER UNLESS OTHERWISE NOTED.
- MANHOLES DESIGNATED W.T. IN PLAN AND PROFILE SHALL HAVE WATERTIGHT FRAME AND COVERS, STANDARD DETAIL C5.52. WHERE WATERTIGHT MANHOLE FRAME AND COVER IS USED, SET TOP OF FRAME 1' - 6" ABOVE FINISHED GRADE UNLESS OTHERWISE NOTED ON THE DRAWINGS.
- HOUSE(S) WITH THE SYMBOL "C.N.S." INDICATES THAT CELLAR CANNOT BE SERVED.
- STATIONING SHOWN IS WATER MAIN AND CENTER LINE STATIONING.
- CONTRACTOR TO VERIFY THE LOCATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCING CONSTRUCTION.
- SEDIMENT CONTROL TO BE PROVIDED BY F-XX-XXX.
- ALL SEWER HOUSE CONNECTIONS TO BE 4" IN SIZE.
- ALL WATER HOUSE CONNECTIONS TO BE 1" IN SIZE UNLESS OTHERWISE NOTED.
- ALL HOUSES WILL HAVE SERVICE TO LOWEST FLOOR UNLESS OTHERWISE NOTED.
- COMPACTION IN FILL AREAS TO BE 95% AS DETERMINED PER AASHTO T-180.

EROSION AND SEDIMENT CONTROL FOR THIS CONTRACT IS PROVIDED UNDER F-02-64

TYPE OF BUILDING	SFD
No. OF UNITS	21
No. OF WATER HOUSE CONNECTION	21
No. OF SEWER HOUSE CONNECTIONS	21
DRAINAGE AREA	LITTLE PATUXENT
TREATMENT PLANT	LITTLE PATUXENT WATER RECLAMATION PLANT

**CONTRACT NO.: 24-4013-D
 RED HILL BRANCH OVERLOOK
 WATER AND SEWER MAIN EXTENSIONS
 HOWARD COUNTY, MARYLAND
 DEPARTMENT OF PUBLIC WORKS**

INDEX OF DRAWINGS

NO.	DESCRIPTION
1	TITLE SHEET
2	WATER AND SEWER PLAN
3	WATER & SEWER PROFILES

OWNER
 MORRIS L.L.C.
 C/O MILDENBERG BOENDER AND ASSOC., INC.
 5072 DORSEY HALL DRIVE SUITE 202
 ELLICOTT CITY, MARYLAND 21043
 (410) 997-0296

(MORRIS PROPERTY)

I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.

DEVELOPER'S SIGNATURE: R. JAGGHIKMAT, AUTHORIZED MEMBER
 DEVELOPER'S NAME: MORRIS L.L.C.
 DATE: 3/18/02

I HEREBY CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

ENGINEER'S SIGNATURE: R. JACOBSON
 ENGINEER'S NAME: BOENDER & ASSOC., INC.
 DATE: 4/22/02

REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS.

USDA - NATURAL RESOURCES CONSERVATION SERVICE
 SIGNATURE: Jim Myers
 DATE: 4/22/02

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE SOIL CONSERVATION DISTRICT.

HOWARD SCD SIGNATURE: John R. Roberts
 DATE: 4/22/02

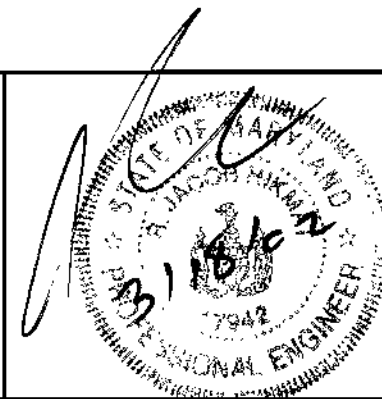
PLAN REFERENCE NUMBERS:
 SP-01-02
 F-02-64

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING & ZONING
 HOWARD COUNTY, MARYLAND

MILDENBERG, BOENDER & ASSOC., INC.
 Engineers Planners Surveyors

5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042
 (410) 997-0296 Bldg. (301) 621-5521 Wash. (410) 997-0298 Fax.



engineering	MMP				
illustration	MMP				
approval	RJH				
project	99-080	KC1	1	ASBUILT FIELD DATA	4/7/02
date	MARCH 02	BY	NO.	REVISION	DATE

TITLE SHEET

RED HILL BRANCH OVERLOOK

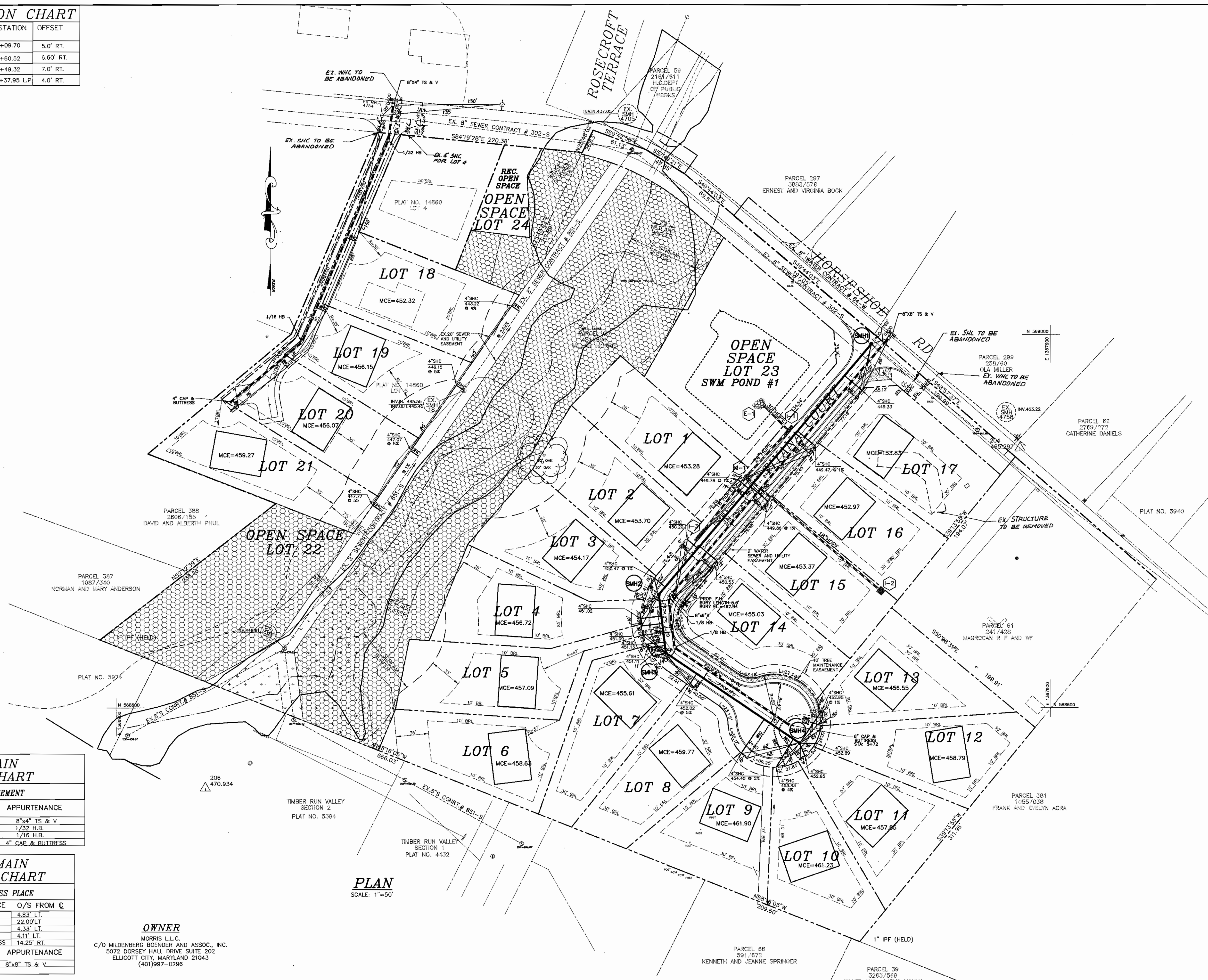
CONTRACT NO.: 24-4013-D
 SECOND ELECTION DISTRICT
 HOWARD COUNTY

scale AS SHOWN

1 OF 3

MANHOLE LOCATION CHART

MH #	ROAD NAME OR NORTHING & EASTING	CL. STATION	OFFSET
1	ROAD "A"	0+09.70	5.0' RT.
2	ROAD "A"	3+60.52	6.60' RT.
3	ROAD "A"	4+49.32	7.0' RT.
4	ROAD "A"	1+37.95 L.P.	4.0' RT.



4" WATER MAIN TABULATION CHART
USB-IN-COMMON EASEMENT

NORTHING & EASTING	APPURTENANCE
N 569,252 E 1,367,197	8"x4" TS & V
N 569,209 E 1,367,191	1/32 H.B.
N 568,992 E 1,367,099	1/16 H.B.
N 568,928 E 1,367,022	4" CAP & BUTTRESS

8" WATER MAIN TABULATION CHART
ROAD "A" PUBLIC ACCESS PLACE

STATION	APPURTENANCE	O/S FROM C
3+52.95	8"x6" F.H.T.	4.83' LT.
3+55.80	F.H.	22.00' LT.
3+58.67	1/8" H.B.	4.33' LT.
4+21.41	1/8" H.B.	4.11' LT.
L.P. 1+24.56	8" CAP & BUTTRESS	14.25' RT.

NORTHING & EASTING APPURTENANCE
 N 569,000 E 1,367,730 8"x8" TS & V

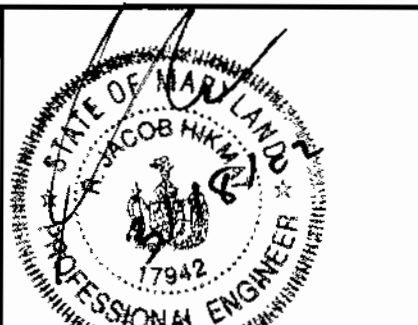
OWNER
 MORRIS L.L.C.
 C/O MILDBERG BOENDER AND ASSOC., INC.
 5072 DORSEY HALL DRIVE SUITE 202
 ELLICOTT CITY, MARYLAND 21043
 (410) 997-0296

PLAN
 SCALE: 1"=50'

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 R. H. ... 4-15-02
 CHIEF, BUREAU OF UTILITIES

DEPARTMENT OF PLANNING & ZONING
 HOWARD COUNTY, MARYLAND
 ... 4/21/02
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

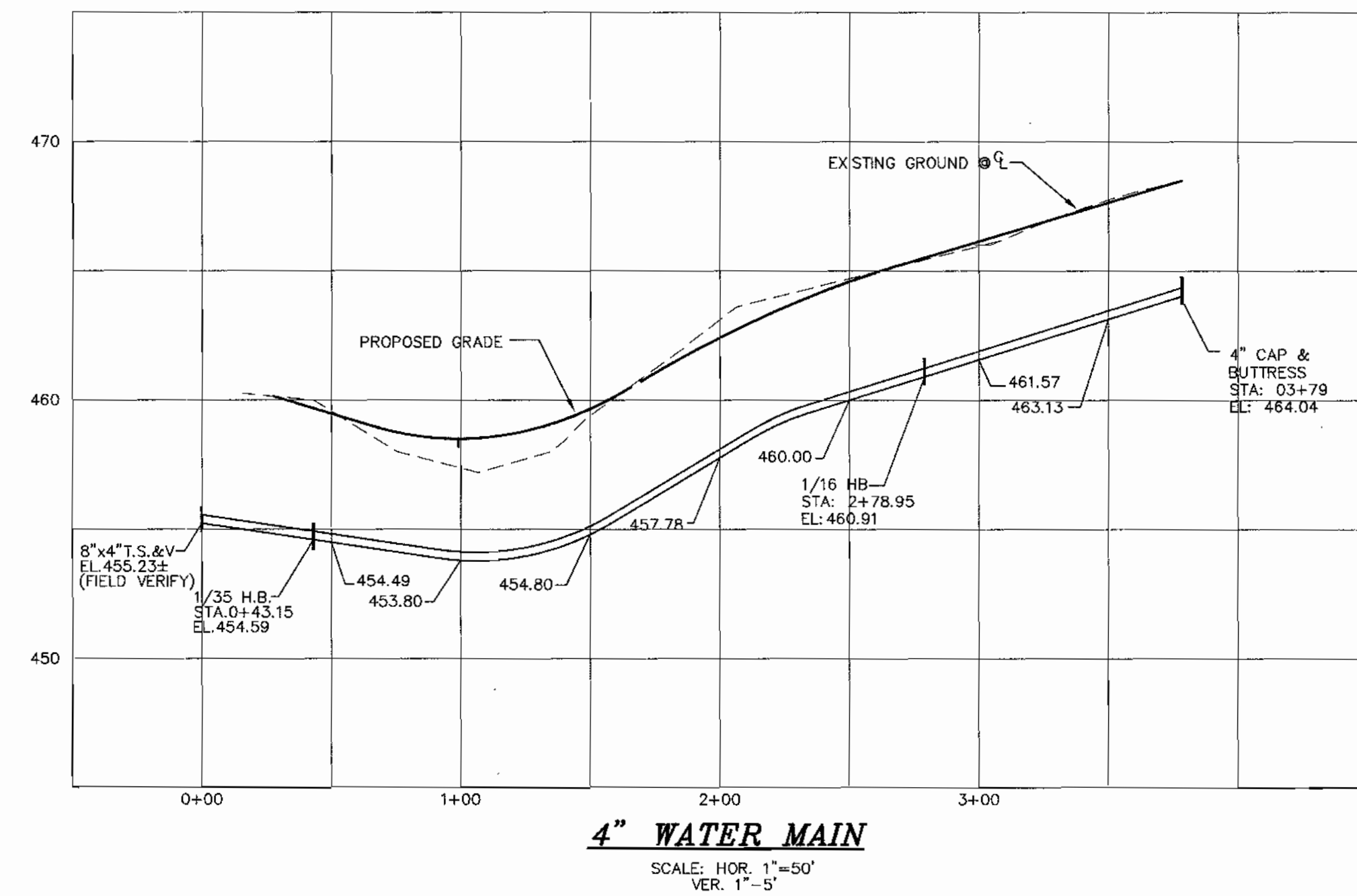
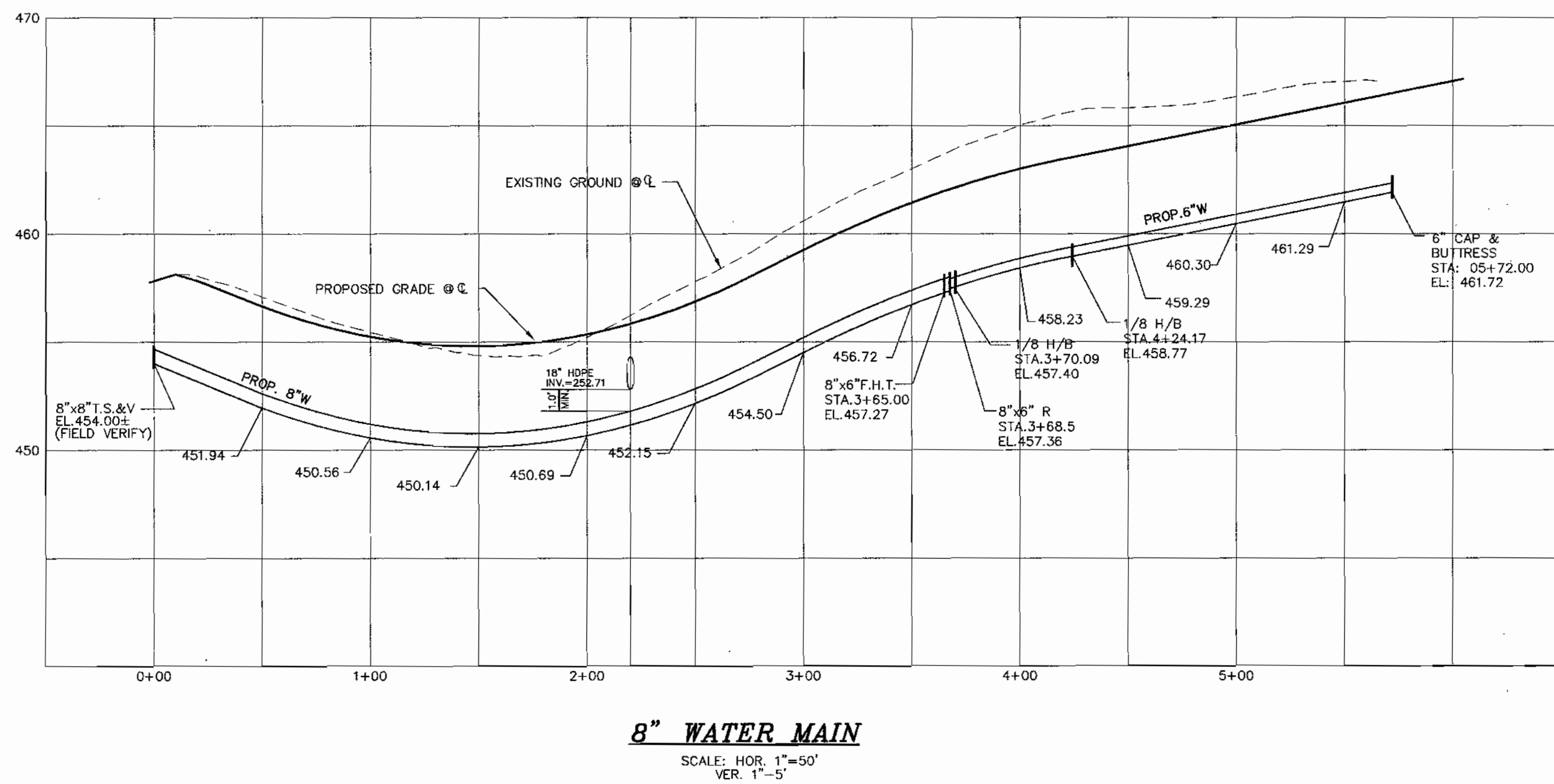
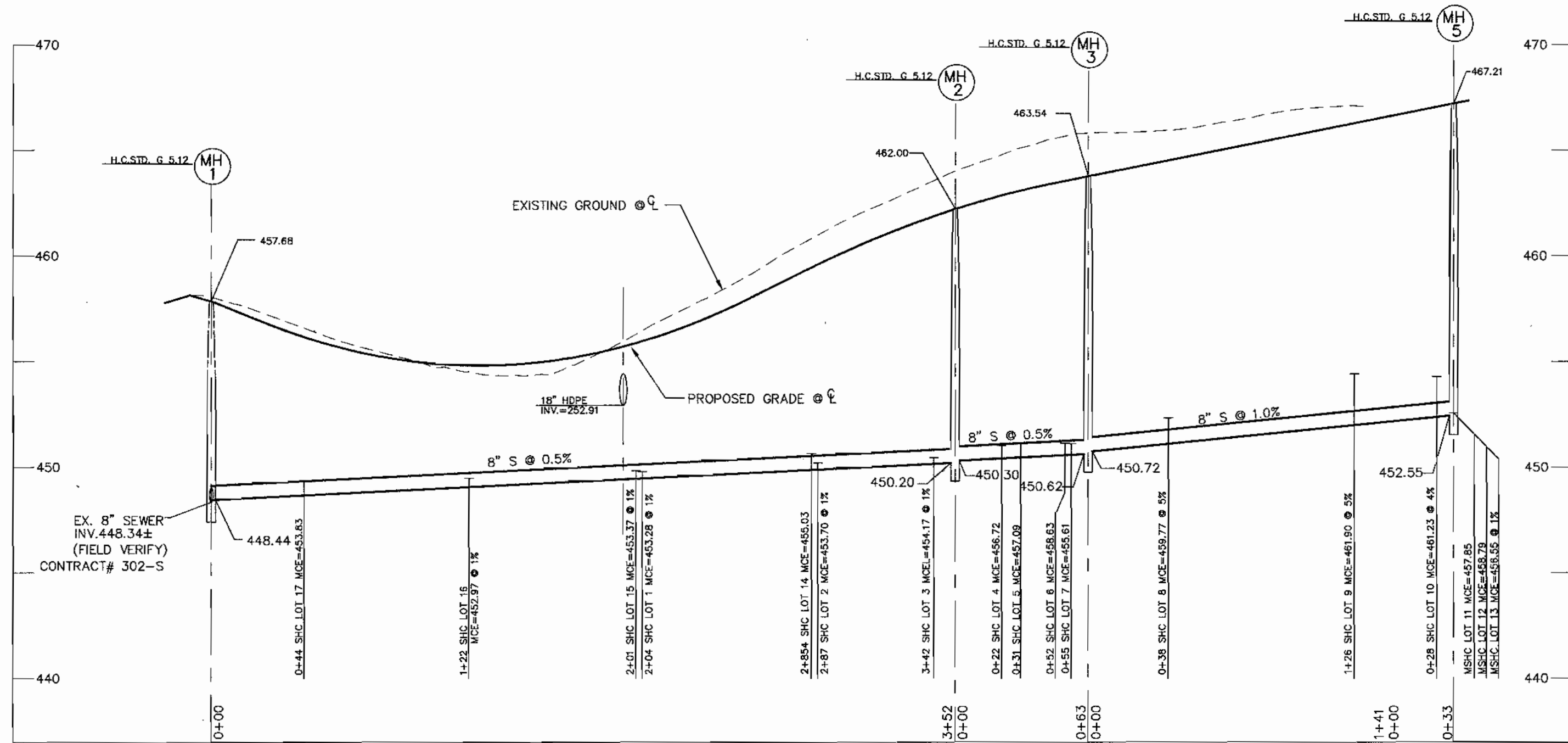
MILDBERG BOENDER & ASSOC., INC.
 Engineers Planners Surveyors
 5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland, 21042
 (410) 997-0296 Balt. (301) 821-5521 Wash. (410) 997-0298 Fax



engineering	MMP		
illustration	MMP		
approval			
project	KC1	2	ASBUILT FIELD DATA
date	MAR 02		

WATER AND SEWER PLAN
 600' SCALE MAP NO. ... 31 ... BLOCK NO. ... 12 ...

RED HILL BRANCH OVERLOOK
 CONTRACT NO.: 24-4013-D
 SECOND ELECTION DISTRICT
 HOWARD COUNTY



OWNER

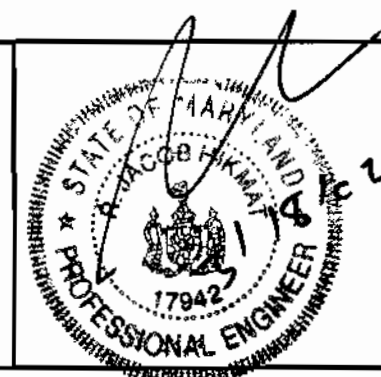
MORRIS L.L.C.
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5072 DORSEY HALL DRIVE SUITE 202
ELLCOTT CITY, MARYLAND 21043
(410)997-0296

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND

MILDENBERG BOENDER & ASSOC., INC.
Engineers Planners Surveyors

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(410) 997-0296 Dalk. (301) 621-5521 Wash. (410) 997-0296 Fax



engineering	MMP				
illustration	MMP				
approval					
project	99-080	K.C.I.	1	ABOULT FIELD DATA	1/1/02
date	MARCH 02	BY	NO.	REVISION	DATE

WATER AND SEWER PROFILE

RED HILL BRANCH OVERLOOK

CONTRACT NO.: 24-4013-D
SECOND ELECTION DISTRICT
HOWARD COUNTY

scale
1"=50'

3 OF 3

R. J. B... 4-15-02
CHIEF, BUREAU OF UTILITIES DATE

M. Williams 4/24/02
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

600' SCALE MAP NO. 31 BLOCK NO. 13